, for the proportion of the same Water, to the same very
Spirit of Wine was, as 21. to 19.
traction, Water is more Dense then Ice; for I have found
n Experiment, which I exhibited before divers illustrious
Royal Society, that the Refraction of Water was greater
though some considerable Authors have affirm'd the con-
gh the Ice be a very hard, and the Water a very fluid

er of the two preceding Propositions is true, may be
Experiments: As first, if you take any two liquors dif-
er in density, but yet such as will readily mix, as Salt-
bout almost any kind of Salt dissolv'd in Water, and filtra-
ween Spirit of Wine and Water; nay, Spirit of Wine, and
e more highly rectify'd then the other, and very many
I say) you take any two of these liquors, and mixing
, against one side of which you have fix'd or glued
Paper, and shaking them well together (so that the
e somewhat disturb'd and move up and down) you
nt round piece of Paper through the body of the li
ainly perceive the Figure to wave, and to be indented
e manner as the limb of the Sun through a *Telescope*
ly that the mutations here, are much quicker. And if
r Circle, you take a very small spot, and fasten and
you will find it to appear much like the twinkling
much quicker: which two *Phænomena* (for I shall
e at present, though I could instance in multitudes
tainly be caus'd by an *inflection* of the Rays within
cies of the compounded *medium*, since the surfaces
through which the Rays pass to the eye, are not
d.
may so call it) I imagine to be nothing else, but a
caused by the unequal *density* of the constituent
whereby the motion, action or progress of the Ray
n proceeding in a streight line, and *inflected* or de
ow, that it is a *curve* line is manifest by this Expe-
uch as A D G E, in the first *Figure* of the 37. *Scheme*,
and E F G H, were made of two smooth flat
filling it half full with a very strong solution of
r half with very fair fresh water, then expos
G C, to the Sun, I observ'd both the *refraction* and
ums I D & K H, and marking as exactly as I could
by which the Ray, K H, passed through the con-
nd them to be in a *curve* line; for the parts of the
ly more dense the neerer they were to the bot-
continually more and more deflected downward

be mechanically explained, either by Mon-

Schem. XXXVII.

Fig: 1.

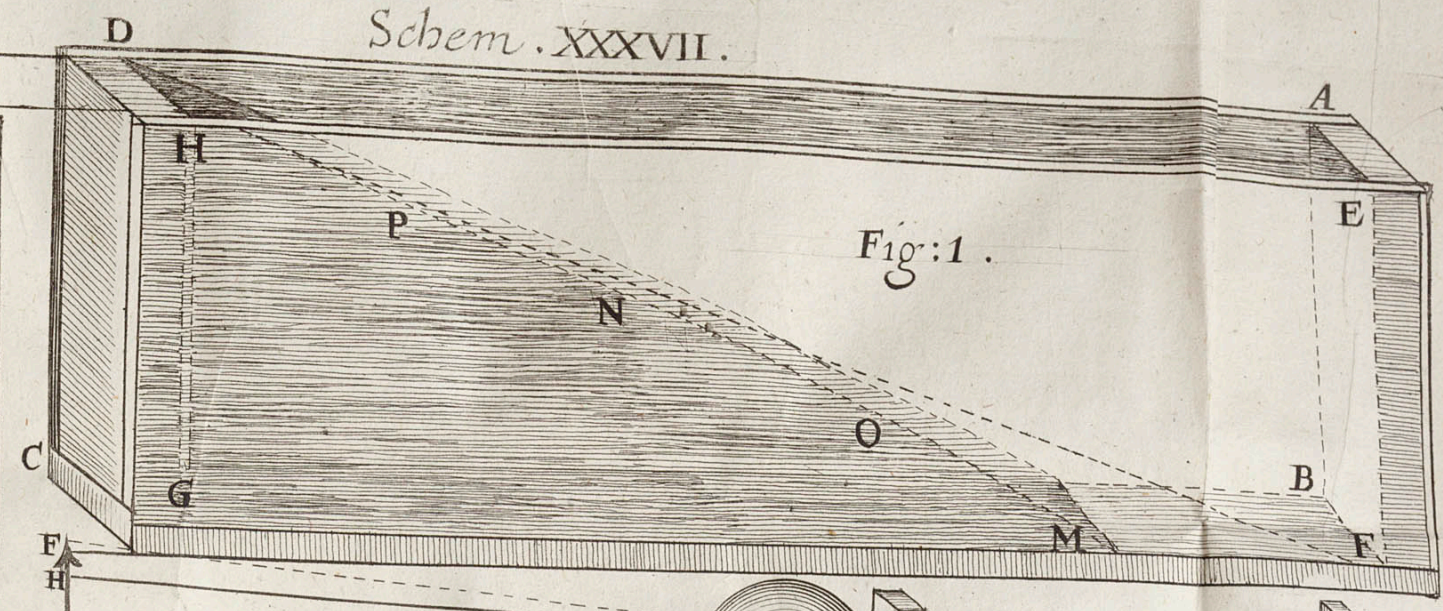

Fig: 2.

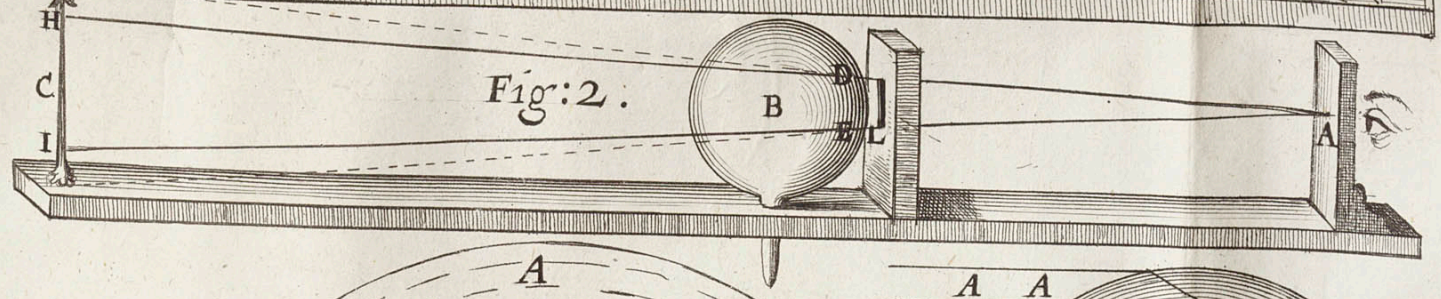

Fig: 3.

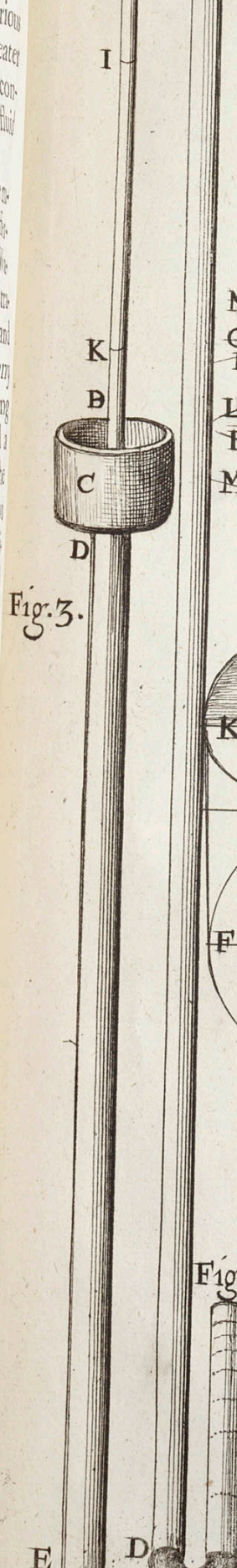

Fig: 4.

Fig: 5.

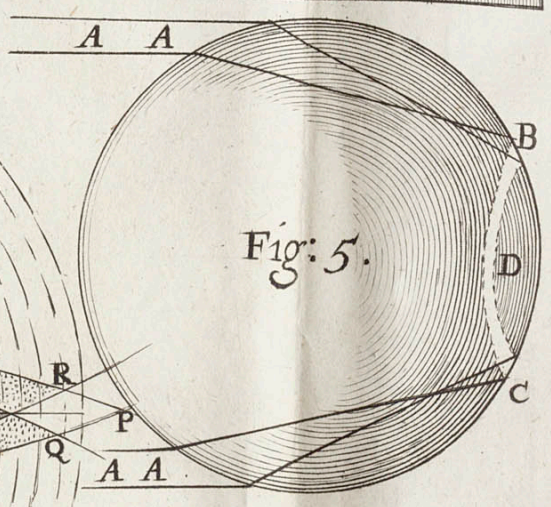

Fig: 6.

Fig: 7.

Fig: 8.

Fig: 9.